

PTO/SB/08A (08-03)

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Complete if Known

Application Number	10/772,108
Filing Date	02/04/2004
First Named Inventor	Jantzen A. Cole
Art Unit	
Examiner Name	
Attorney Docket Number	702.117

Sheet 1 of 5

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
/A.W./		US- 2002/0016636	02/07/02	Ricci, et al.	
		US- 6,652,887	11/25/03	Richelsoph, et al.	
		US- 6,340,477	01/22/02	Anderson	
		US- 6,224,635	05/01/01	Ricci, et al.	
		US- 6,118,043	09/12/00	Nies, et al.	
		US- 6,083,522	07/04/00	Chu, et al.	
		US- 6,071,530	06/06/00	Polson, et al.	
		US- 6,056,970	05/02/00	Greenawalt, et al.	
		US- 6,051,247	04/18/00	Hench, et al.	
		US- 6,037,519	03/14/00	McKay	
		US- 6,030,636	02/29/00	Randolph, et al.	
		US- 6,030,635	02/29/00	Gertzman, et al.	
		US- 5,981,828	11/09/99	Nelson, et al.	
		US- 5,972,368	10/26/99	McKay	
		US- 5,964,805	10/12/99	Stone	
		US- 5,948,428	09/07/99	Lee, et al.	
		US- 5,948,426	09/07/99	Jefferies	
		US- 5,910,315	06/08/99	Stevenson, et al.	
/A.W./		US- 5,899,939	05/04/99	Boyce, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				
/A.W./		WO98/40113	09/17/98	Grooms		
/A.W./		WO96/392203	12/12/96	Jefferies		

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Signature

/Amanda Walker/

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08/23/2007

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Sheet 2 of 5**U. S. PATENT DOCUMENTS**

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		Number-Kind Code ² (if known)			
/A.W./		US- 5,861,445	01/19/99	Xu, et al.	
		US- 5,830,493	11/03/98	Yokota, et al.	
		US- 5,824,087	10/20/98	Aspden, et al.	
		US- 5,807,567	09/15/98	Randolph, et al.	
		US- 5,788,976	08/04/98	Bradford	
		US- 5,769,897	06/23/98	Harte	
		US- 5,766,618	06/16/98	Laurencin, et al.	
		US- 5,763,416	06/09/98	Bonadio, et al.	
		US- 5,756,127	05/26/98	Grisoni, et al.	
		US- 5,727,945	03/17/98	Dannenbaum	
		US- 5,707,962	01/13/98	Chen, et al.	
		US- 5,700,289	12/23/97	Breitbart, et al.	
		US- 5,697,981	12/16/97	Ison, et al.	
		US- 5,681,873	10/28/97	Norton, et al.	
		US- 5,676,146	10/14/97	Scarborough	
		US- 5,614,206	03/25/97	Randolph, et al.	
		US- 5,618,549	04/08/97	Patat, et al.	
		US- 5,573,771	11/12/96	Geistich, et al.	
/A.W./		US- 5,578,662	11/26/96	Bennett, et al.	

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		Number-Kind Code ² (if known)			
/A.W./		US- 5,569,308	10/29/96	Sottosanti	
		US- 5,531,791	07/02/96	Wolfinbarger	
		US- 5,512,610	04/30/96	Lin	
		US- 5,510,396	04/23/96	Prewett, et al.	
		US- 5,507,813	04/16/96	Dowd et al.	
		US- 5,484,601	01/16/96	O'Leary, et al.	
		US- 5,482,551	01/09/96	Morris, et al.	
		US- 5,462,722	10/31/95	Liu, et al.	
		US- 5,439,684	08/08/95	Prewett, et al.	
		US- 5,425,769	06/20/05	Snyders	
		US- 5,417,975	05/23/95	Lussi, et al.	
		US- 5,405,390	04/11/95	O'Leary, et al.	
		US- 5,385,887	01/31/95	Yim, et al.	
		US- 5366,507	11/02/94	Sottosanti	
		US- 5,356,629	10/18/94	Sander, et al.	
		US- 5,336,699	08/09/94	Cooke, et al.	
		US- 5,320,844	06/14/94	Liu	
		US- 5,314,476	05/24/94	Prewett, et al.	
/A.W./		US- 5,306,304	04/26/94	Gendler	

FOREIGN PATENT DOCUMENTS

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		Number-Kind Code ² (if known)			
/A.W./		US- 5,298,254	03/29/94	Prewett, et al.	
		US- 5,290,558	03/01/94	O'Leary, et al.	
		US- 5,284,655	02/08/94	Bogdansky, et al.	
		US- 5,264,214	11/23/93	Rhee, et al.	
		US- 5,236,971	08/17/93	Murray	
		US- 5,236,456	08/17/93	O'Leary, et al.	
		US- 5,219,897	06/15/93	Murray	
		US- 5,162,114	11/10/92	Kuberasampath et al.	
		US- 5,14,403	09/15/92	Gitelis	
		US- 5,073,373	12/17/91	O'Leary, et al.	
		US- 5,061,286	10/29/91	Lyle	
		US- 4,994,030	02/19/91	Glowczewskie, et al.	
		US- 4,975,526	12/04/90	Kuberasampath, et al	
		US- 4,892,734	01/09/90	Leonard	
		US- 4,882,149	11/21/89	Spector	
		US- 4,880,660	11/14/89	Aasen, et al.	
		US- 4,820,306	04/11/89	Gorman, et al.	
		US- 4,681,763	07/21/87	Nathanson, et al.	
/A.W./		US- 4,650,665	03/17/87	Kronenthal, et al.	

FOREIGN PATENT DOCUMENTS

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Examiner Signature	/Amanda Walker/	Date Considered	08/23/2007
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/A.W./ ↓ ↓ ↓ ↓ ↓ ↓		US- 4,619,655	10/28/86	Hanker, et al.	
		US- 4,612,009	09/16/86	Drobnik, et al.	
		US- 4,596,574	06/24/86	Urist	
		US- 4,595,713	06/17/86	St. John	
		US- 4,568,536	02/04/86	Kronenthal, et al.	
		US- 4,430,760	02/14/84	Smestad	
		US- 3,813,312	05/28/74	Kinkade, et al.	
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/Amanda Walker/

Date

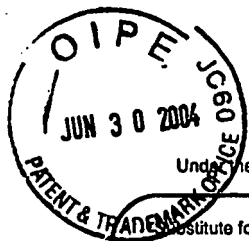
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Sheet

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First Named Inventor

Jantzen A. Cole

Art Unit

Examiner Name

Attorney Docket Number

702.117

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/A.W./		Advances in Biomaterials for Bone Regeneration. Orthopedics, Vol. 26, No. 5/Supplement, May, 2003	
		Betz, R.R.: Limitations of Autograft and Allograft: New Synthetic Solutions. Orthopedics, 25(5 Suppl.): s561-s570 (2002)	
		"Bone Graft Substitutes Safe, Effective" AMA Science News Media Briefings, December 6, 2001-copy unavailable	
		Turner, TM, et al.: Radiographic and Histologic Assessment of Calcium Sulfate in Experimental Animal Models . . . for Local Antibiotic Delivery. J. Bone Joint Surg. 83A(Suppl.2/Pt. 1): 8-18 (2001)	
		Greenwald, AS, et al.: Bone-Graft Substitutes: Facts, Fictions and Applications. J. Bone Joint Surg. 83A(Suppl. 2/Pt. 2): 98-103 (2001)	
		Kelly, EB: New Frontiers in Bone Grafting. Orthopedic Technology Review 2(9) (2000)	
		Adkisson, HD, et al.: Rapid Quantitative Bioassay of Osteoinduction. J. Orthop. Res. 18(3): 503-511 (2000)	
		Hanker, JS: Setting of Composite Hydroxylapatite/Plaster Implants with Blood for Bone Reconstruction. Proc. 44th Ann. Meeting Electron Microscopy Society of America (1986)	
/A.W./		Biomaterials Tutorial; www.btec.cmu.edu/tutorial/biomaterials/biomaterials.htm, undated	

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